

REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in view of the following remarks is respectfully requested.

Claims 1, 3-8, 13-21, 23, 24, 26-29, and 39-46 are presently active in this case. Claim 1 has been amended by the current amendment. See for example, Figure 5 which reflects the benefits of having the CC-layers within or in contact with the ferromagnetic layers of the free and pinned layers, respectively.

In the outstanding Office Action, the Specification was objected to; claims 1, 3-8, 13-18, 39, and 43 were rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement; Claims 1, 3-8 and 39 were rejected under 35 USC 102(e) as being anticipated by Sakakima et al. (5,715,121); and Claims 15-18 were rejected under 35 USC 103(a) as being unpatentable over Sakakima et al. in view of "AAPA" (Applicants' Admitted Prior Art).

In response to the objection to the specification, Applicants have amended the paragraph beginning at page 14, line 1 to reflect that the free layer and pinned layer structures can be switched. That is, element 91 and element 92 can be a free layer and a pinned layer structure, respectively, in one embodiment element 91 and element 92 can be a pinned layer and a free layer, respectively, in another embodiment. Support for this change can be found in the specification, for example, at page 9, lines 18-22. No further objection to the specification is therefore anticipated.

Claims 1, 3-8, 13-18, 39, and 43 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse. Figure 4 illustrates an embodiment wherein the CC layer structure 44' is located within the ferromagnetic layer 42a. Because the CC layer 44' is within the ferromagnetic layer 42a, making a pinned layer structure together with the antiferromagnetic layer 42b, the

CC layer 44' is not in direct contact with the antiferromagnetic layer 42b. See also Figure 5 which illustrates the dependence of the GMR ratio on the location of the CC layers. The CC layers are in contact with the antiferromagnetic layer in none of the embodiments reflected in Figure 5 with a maximal GMR ratio. See also page 12, lines 3-11 which discloses the benefit of having one of the CC layers within or in the vicinity of the free layer structure and the second CC layer within or in the vicinity of the pinned layer. The last sentence of that paragraph discloses that the CC layer is located in the "middle" of each magnetic layer. Applicants further point out that page 18, line 18 - page 19, line 21 disclose how to fabricate the CC-layer.

In view of the foregoing, Applicants respectfully submit that a person of ordinary skill in the art would have known how to make the invention of claim 1. Thus, the enablement rejection should be withdrawn.

For the reasons provided during the September 04, 2007 interview and in the October 23, 2007 Amendment, Sakakima is not believed to anticipate or render obvious the subject matter defined by claim 1. In particular, Sakakima fails to teach or suggest that none of the CC-layer structures are set in direct contact with the antiferromagnetic layer. Claims 3-8, 13-18, 39 and 43 are also believed to be allowable for at least the same reasons as claim 1.

Regarding claim 15, Applicants respectfully point out that Sakakima does not teach or suggest the exchange length feature. Thus, claim 15 is believed to be allowable.

Regarding dependent claim 16, Applicants respectfully point out that, although the cascade manner of the conducting parts may have been known by a person of ordinary skill in the art, the quantitative relationship between the path distance and the thickness of the ferromagnetic layer on which the CC-layers are provided results in benefits not previously known or understood. Thus, claim 16 is believed to be allowable.

In view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance.

An early and favorable action is therefore requested.

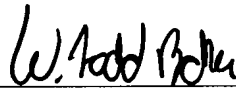
Respectfully submitted,

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